

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES**

In re patent application of:
Deborra J. Zukowski, et al.

) Attorney Docket No.: F-870
) Customer No.: 00919

Serial No.: 10/710,295
Filed: June 30, 2004
Confirmation No.: 4294

)
) Examiner: Tuyetlien T. Tran
) Group Art Unit: 2179
) Date: May 4, 2010

For: METHOD AND SYSTEM FOR DEPLOYMENT OF SENSORS

Mail Stop Appeal Brief- Patents
Commissioner for Patents
Alexandria, VA 22313-1450

APPELLANTS' BRIEF ON APPEAL

Sir:

This is an appeal pursuant to 35 U.S.C. § 134 and 37 C.F.R. §§ 41.31 et seq. from the final rejection of claims 1 - 6, 13 - 23, 25, and 26 of the above-identified application mailed December 4, 2009 (Final Office Action). This Brief is in furtherance of the Notice of Appeal transmitted on March 4, 2010. Accordingly, this brief is timely filed. The fee for submitting this Brief is \$540.00 (37 C.F.R. § 1.17(c)) and is submitted herewith.

The Commissioner is hereby authorized to charge any additional fees that may be required for this appeal or to make this brief timely or credit any overpayment to Deposit Account No. **16-1885**.

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I. Real Party in Interest

The real party in interest in this appeal is Pitney Bowes Inc., a Delaware corporation, the assignee of this application.

II. Related Appeals and Interferences

There are no appeals or interferences known to Appellants, their legal representative, or the assignee that will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. Status of Claims

Claims 1 - 6, 13 - 23, 25, and 26 are pending in the application.

Claims 1 - 6, 13 - 23, and 25 - 26 are in the case and under final rejection of the Examiner.

Claims 7-12 and 24 have been canceled without prejudice or disclaimer.

Claims 1 - 6, 13 - 22 and 25- 26 are in the case and stand finally rejected under 35 U.S.C. 103(a) as allegedly rendered obvious by U.S. Patent No. 7,089,288 B2 to Gossweiler III, et al. ("Gossweiler '288") in view of U.S. Patent Application Publication No. 2005/0131959 A1 by Thorman, et al. ("Thorman '959").

Claim 23 is in the case and stands finally rejected under 35 U.S.C. 103(a) as allegedly rendered obvious by U.S. Patent No. 7,089,288 B2 to Gossweiler III, et al. ("Gossweiler '288") in view of U.S. Patent Application Publication No. 2005/0131959 A1 by Thorman, et al. ("Thorman '959") in further view of Want, et al., "Bridging Physical and Virtual Worlds with Electronic Tags," CHI' 99, pages 370-377 ("Want").

Appellants hereby appeal the final rejection of claims 1 - 6, 13 - 23, and 25 - 26.

IV. Status of Amendments

There are no amendments to the claims filed subsequently to the Final Office Action of December 4, 2009. Therefore, the claims set forth in Appendix A to this brief are those as set forth before the final rejection.

V. Summary of Claimed Subject Matter

Appellants' invention relates generally to new and useful systems and methods for consistent deployment of sensors for both physical and virtual objects in a context aware environment. It supports user interactions with both virtual and physical objects wherein any type of object can be explicitly instrumented with a sensor, either virtual or physical. User actions are sensed through these sensors and responses can be determined consistently, regardless of whether the object is physical or virtual. See Specification, ¶ 10.

As shown in FIGS. 2 and 3 below, an illustrative context aware environment 200, 300 is provided that facilitates interaction between physical and virtual material. As shown in FIG. 2, a person 230, Phyllis is in an office 200 in which many documents are available. Phyllis can begin to work on any one, including those 272, 274, 276, 278 physically arrayed on the desk 260 or any listed either on the document list 220 on computer display 210 or document list 250 on the smart wall 240. The environment and the objects within it, for example, the physical documents, wall, and the document list application, have been instrumented with sensors as shown by the shapes 212, 242, 222, 252, 271, 273, 275, and 277 in the figure. As shown below in FIG. 7, the tangible item on the desk may be a token that is instrumented such as a plastic card.

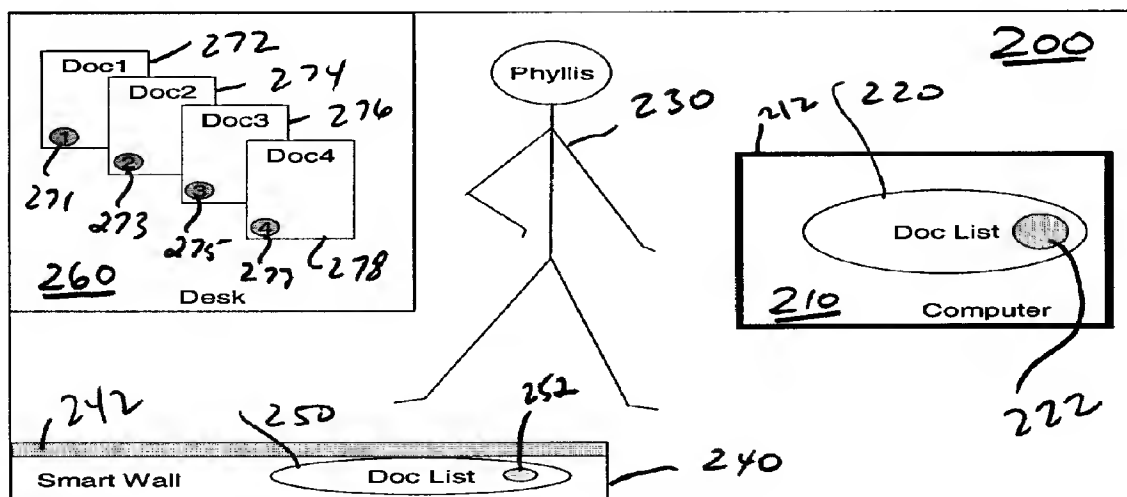


FIG. 2

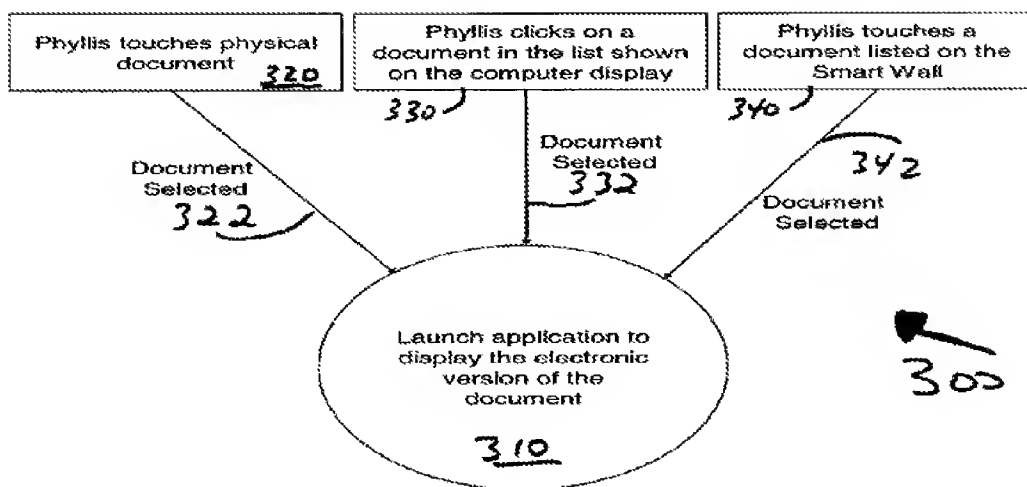


FIG. 3

In this illustrative example, when a user 230 selects a document, the environment should launch a document assistant application on the computer that shows the content electronically, as shown in FIG. 3. If a user touches a physical document in 320, the document selection method 322 causes a method to launch an application to display the electronic version of the document 310. If the user selects a document in the computer display list, 330 the document selection method 332 starts the application launcher. Similarly, if the user selects a document listed on the smart wall, 340 the document selection method 342 starts the application launcher. See Specification, ¶¶ 0033-35, FIGs. 2-3.

In FIG. 7, a flowchart describing a representative sensor interaction according to an illustrative embodiment of the present application is shown. In this example, the method is associated with a person touching or interacting with a virtual document using a tangible interface. In this illustrative example, the tangible interface includes a physical token such as a plastic card. An association between the sensor and the virtual document is created. First the user attaches a sensor to the physical token. The user can create a plurality of such instrumented tokens. The user then places one such token into the system. As a result of placing the token into the system, an application is

started that first presents the user with a browser to select the desired virtual document, as defined by known document model instances. When the document is chosen, a sensor model instance is created, and the DeployedFor property is set to the identifier for the model instance of the document. The sensor class is also set to TOUCH DETECTION because the apparatus has been configured for associating touch-based sensors to documents.

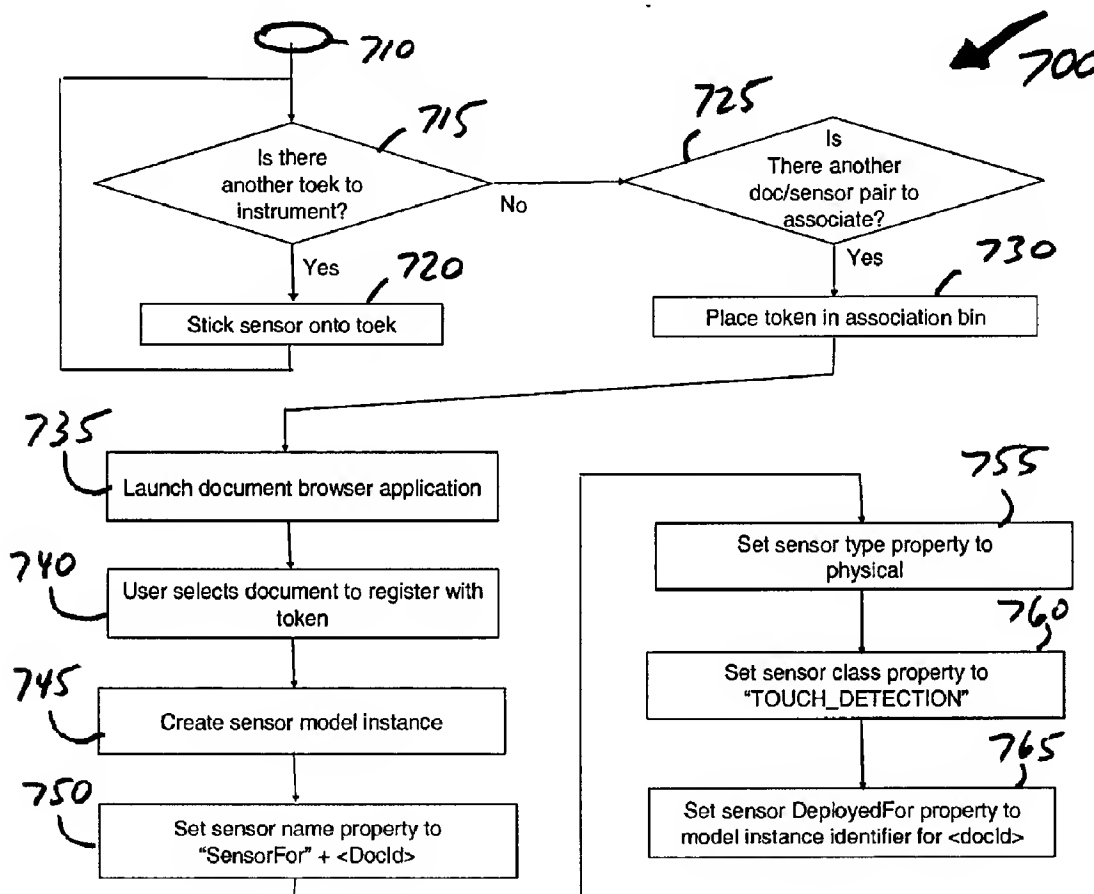


FIG. 7

An illustrative method 700 for processing a token is shown above. The process begins in step 710 and proceeds to step 715 to determine whether there is another token to process. If so, the process proceeds to step 720 and a sensor is placed on the token. If not, the process proceeds to step 725 to determine whether there is another document/sensor pair to associate. If there isn't, the process terminates. If there is, the

process proceeds to step 730 and the token is placed in the association bin. The process proceeds to step 735 to launch a document browser application. Then in step 740, the user selects a document to register with the token. In step 745, the process creates a sensor model instance. In step 750, the sensor name property is set to SensorFor and the document identifier. In step 755, the sensor type property is set to physical and in step 760, the sensor class property is set to TOUCH DETECTION. See Specification, ¶¶ 0046-48, FIG. 7.

Independent claim 1 is shown with illustrative annotated references to the specification, reference numerals and figures:

1. A method for processing a physical token in a responsive environment having a processor to provide an association with a virtual document comprising (FIGs. 1-8; ¶¶ 0019-49):
 - attaching a physical sensor to the physical token (720), wherein the physical sensor is associated with the physical token;
 - sensing the presence of the physical token in an instrumented association bin (730);
 - launching a document browser application in response to sensing the presence of the physical token in the instrumented association bin (735);
 - obtaining user selection data from the document browser application identifying the virtual document to register with the physical token (740); and
 - creating a sensor model instance (745) associating the physical sensor with the physical token, the user and the virtual document using the processor.

Independent claim 15 is shown with illustrative annotated references to the specification, reference numerals and figures:

15. A method for processing a physical token in a responsive environment having a processor to provide an association with a virtual document comprising (FIGs. 1-8; ¶¶ 0019-49):
 - placing a physical sensor having a sensor identifier in proximity to the physical token, wherein the physical sensor is associated with the physical token (720);
 - placing the physical token in an instrumented association bin, wherein the instrumented association bin is configured to read the physical sensor (730);

launching a document browser application (735);
obtaining sensor identifier data from the instrumented association
bin (740);
obtaining user selection data from the document browser
application identifying the virtual document to register with the token (740);
and
creating a sensor model instance associating the physical sensor
with the physical token, the user and the virtual document by using the
obtained sensor identifier data and the user selection data using the
processor (745).

Additional features of the invention are discussed below in the Argument section of this Brief. This summary is not intended to supplant the description of the claimed subject matter as provided in the claims as recited in Appendix A, as understood in light of the entire specification.

VI. Grounds of Rejection to Be Reviewed on Appeal

A. Whether Claims 1 - 6, 13 - 22 and 25- 26 are unpatentable under 35 U.S.C. 103(a) as allegedly rendered obvious by U.S. Patent No. 7,089,288 B2 to Gossweiler III, et al. ("Gossweiler '288") in view of U.S. Patent Application Publication No. 2005/0131959 A1 by Thorman, et al. ("Thorman '959").

B. Whether Claim 23 is unpatentable under 35 U.S.C. 103(a) as allegedly rendered obvious by U.S. Patent No. 7,089,288 B2 to Gossweiler III, et al. ("Gossweiler '288") in view of U.S. Patent Application Publication No. 2005/0131959 A1 by Thorman, et al. ("Thorman '959") in further view of Want, et al., "Bridging Physical and Virtual Worlds with Electronic Tags," CHI' 99, pages 370-377 ("Want").

VII. Argument

As discussed in detail below, Appellants respectfully submit that the final rejection of claims 1 - 6, 13 - 23, 25, and 26 does not meet the threshold burden of presenting a prima facie case of unpatentability. Accordingly, Appellants are entitled to grant of those claims. In re Oetiker, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992).

A Claims 1 - 6, 13 – 22 and 25- 26 are not Unpatentable under 35 U.S.C. § 103(a)

Claims 1 - 6, 13 – 22 and 25- 26 are in the case and stand finally rejected under 35 U.S.C. 103(a) as allegedly rendered obvious by U.S. Patent No. 7,089,288 B2 to Gossweiler III, et al. (“Gossweiler ‘288”) in view of U.S. Patent Application Publication No. 2005/0131959 A1 by Thorman, et al. (“Thorman ‘959”).

Appellants respectfully disagree with the rejection and urge its reversal for at least the reasons stated below.

In rejecting a claim under 35 U.S.C. §103, the Examiner is charged with the initial burden for providing a factual basis to support the obviousness conclusion. *In re Warner*, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967); *In re Lunsford*, 375 F.2d 385, 148 USPQ 721 (CCPA 1966); *In re Freed*, 425 F.2d 785, 165 USPQ 570 (CCPA 1970). The Examiner is also required to explain how and why one having ordinary skill in the art would have been led to modify an applied reference and/or combine applied references to arrive at the claimed invention. *In re Ochiai*, 37 USPQ2d 1127 (Fed. Cir. 1995); *In re Deuel*, 51 F.3d 1552, 34 USPQ 1210 (Fed. Cir. 1995); *In re Fritch*, 972 F.2d 1260, 23 USPQ 1780 (Fed. Cir. 1992); *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988). *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. ___, 127 S.Ct. 1727, 1735 (2007) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.* (quoting Kahn, 441 F.3d at 988)). *See also, Takeda Chem. Indus., Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350, 1357 (Fed. Cir. 2007) (To avoid improper use of hindsight, the Examiner must articulate “a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does” in an obviousness determination. (quoting *KSR*, 127 S. Ct. at 1731)).

See also, In re Kahn, 441 F.3d 977 (Fed. Cir. 2006)(Most inventions arise from a combination of old elements and each element may often be found in the prior art.

However, mere identification in the prior art of each element is insufficient to defeat the patentability of the combined subject matter as a whole).

Additionally, if the references when combined suggest an inoperative device, the Examiner may not use the references to establish a prima facie rejection. *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339 (Fed. Cir. 2001)(if references taken in combination would produce a "seemingly inoperative device," then such references teach away from the combination and cannot serve as predicates for a prima facie case of obviousness).

Initially, Appellants respectfully submit that the cited references do not alone or in any proper combination render obvious the claims as presently recited.

Independent Claim 1 currently recites:

1. A method for processing a physical token in a responsive environment having a processor to provide an association with a virtual document comprising:
attaching a physical sensor to the physical token, wherein the physical sensor is associated with the physical token;
sensing the presence of the physical token in an instrumented association bin;
launching a document browser application in response to sensing the presence of the physical token in the instrumented association bin;
obtaining user selection data from the document browser
application identifying the virtual document to register with the physical token; and
creating a sensor model instance associating the physical sensor with the physical token, the user and the virtual document using the processor.

(emphasis added).

With reference to claims 1 and 15, the cited portions of the references apparently do not teach or suggest such a physical sensor associated with the user and a physical token.

Contrary to the Examiner's assertions on in section a) of the Response to Arguments at page 8 of the Final Office Action (and the associated rejection at page 3), Gossweiler '288 apparently describes only a tag associated with a type of action, but not a particular document and not a particular user. See, e.g., Gossweiler '288 at Col. 1, ll. 41-54 and Col. 2, ll. 9-55.

Moreover, the cited portion of the reference relied on at Gossweiler '288 Col. 3, ll 25-47 requires a separate tag to identify the user wherein it states "reading a first tag embedded in a picture identification card to establish user identification, immediately presenting a second tag" The cited passage below shows that the "sentence" is performed by physically having the cards. Only one separate authentication card (not associated with any document) is used for authenticating the user and the other cards are not associated with any particular user.

In operation, for example, the sentence "establish authorization, open my computer desktop as I saved it a week ago, and step through views of the daily desktop changes until today's desktop is shown" can involve the sequential steps of reading a first tag embedded in a picture identification card to establish user identification, immediately presenting a second tag clipped to a first navigational card marked by a user with last week's date, and finally presenting a second premarked navigational card preassociated to step through views from an initial desktop view to the last saved view.

Gossweiler '288 at Col. 3, ll. 25-35. See also Col. 6, ll 14-36. The Gossweiler '288 reference in the cited portions apparently describes how a user would accomplish certain tasks, but not by using tokens that are associated with the document and the user. The document tokens in Gossweiler '288 are not associated with a particular user and thus could be used by anyone in possession of the token. Accordingly, Appellants respectfully maintain that the cited reference does not teach or fairly suggest the recited element.

To the extent the Examiner relies on the bottom of page 8 of the Final Office Action upon a new argument regarding what a skilled artisan might expect regarding logging into a computer system, it is an improper inherency argument.

Many computing systems do not require a user to log into the system to gain access. To properly rely on an inherency argument to supplement the deficiencies of the explicit teaching of the reference, the Examiner must show that inclusion of that exact element must be the only possibility. It is not sufficient that the allegedly inherent characteristic may occur or be present in the prior art. The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the

inherency of that result or characteristic. See *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); MPEP 2112, section IV. Accordingly, the new argument is not proper.

Additionally, in section b) of the Response to Arguments on Page 9 of the Final Office Action, the Examiner suggests that the reference does not exclude the capability of executing the complex instructions sequences and information using just one tag. Appellants respectfully disagree because the reference suggests sentences consisting of sequences of presented tags. Moreover, because the reference apparently does not teach or suggest that feature, it would be improper to read that teaching into the reference as it is not inherent.

Additionally, Appellants respectfully submit that the combination of Thorman '959 and Gossweiler '288 is not proper because it would create a seemingly inoperative device. *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339 (Fed. Cir. 2001). Thorman '959 does not involve associations with physical tokens. Moreover, as shown at least at FIG. 5, the associated specification text and the Abstract, the entire purpose of the reference is to permit display of the contents of multiple file systems. It is important to note that different files may have the same name. Here, the combination as proposed by the Examiner would be inoperative, because the selection process would require that a single unique file name be selected to permit the association. Here, because Thorman '959 does not guarantee that unique name, one of skill in the art would not look to Thorman '959 to modify Gossweiler '288.

Independent Claim 15 currently recites:

15. A method for processing a physical token in a responsive environment having a processor to provide an association with a virtual document comprising:

placing a physical sensor having a sensor identifier in proximity to the physical token, wherein the physical sensor is associated with the physical token;

placing the physical token in an instrumented association bin,
wherein the instrumented association bin is configured to read the
physical sensor;
launching a document browser application;
obtaining sensor identifier data from the instrumented association
bin;
obtaining user selection data from the document browser
application identifying the virtual document to register with the token; and
creating a sensor model instance associating the physical sensor
with the physical token, the user and the virtual document by using the
obtained sensor identifier data and the user selection data using the
processor.

(emphasis added). Independent claim 15 includes certain similar elements as
described with reference to claim 1 and is patentable over the cited references for at
least the reasons described above with reference to those similar elements.

The dependent claims 2-6, 13-14, 16-22 and 25-26 are patentable over the cited
references for at least the reasons described herein with reference to the associated
independent claim and any associated intervening claims.

Furthermore, with regard to claims 2-6, the cited references do not teach or
suggest the sensor model instance as presently claimed.

Thus, the Appellants respectfully submit that Examiner has not established a
prima facie obviousness rejection. Accordingly, Appellants respectfully submit that the
rejection is clearly in error and should be reversed.

B Claim 23 is not Unpatentable under 35 U.S.C. § 103(a)

Claim 23 is in the case and stands finally rejected under 35 U.S.C. 103(a) as
allegedly rendered obvious by U.S. Patent No. 7,089,288 B2 to Gossweiler III, et al.
("Gossweiler '288") in view of U.S. Patent Application Publication No. 2005/0131959 A1
by Thorman, et al. ("Thorman '959") in further view of Want, et al., "Bridging Physical
and Virtual Worlds with Electronic Tags," CHI' 99, pages 370-377 ("Want").

Appellants respectfully disagree with the rejection and urge its reversal for at
least the reasons stated below.

Appellants respectfully submit that dependent claim 23 is patentable for at least the reasons described herein with reference to the associated independent claim and any intervening claims.

Thus, Appellants respectfully submit that the Examiner has not established a prima facie obviousness rejection. Accordingly, Appellant respectfully submits that the rejection is clearly in error and should be reversed.

IX. Conclusion

In Conclusion, Appellants respectfully submit that the final rejection of claims 1 - 6, 13 - 23, 25, and 26 is in error for at least the reasons given above and should be reversed.

Respectfully submitted on behalf of Appellants,

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VIII – CLAIMS APPENDIX
APPENDIX A

1. A method for processing a physical token in a responsive environment having a processor to provide an association with a virtual document comprising:
 - attaching a physical sensor to the physical token, wherein the physical sensor is associated with the physical token;
 - sensing the presence of the physical token in an instrumented association bin;
 - launching a document browser application in response to sensing the presence of the physical token in the instrumented association bin;
 - obtaining user selection data from the document browser application identifying the virtual document to register with the physical token; and
 - creating a sensor model instance associating the physical sensor with the physical token, the user and the virtual document using the processor.
2. The method of claim 1, further comprising:
 - setting a sensor name property.
3. The method of claim 2, further comprising:
 - setting the sensor name property using an identifier associated with the document.
4. The method of claim 1, further comprising:
 - setting a sensor type property to indicate a physical sensor.
5. The method of claim 1, further comprising:
 - setting a sensor class property to indicate touch detection.
6. The method of claim 1, wherein,
 - the physical sensor is attached to the physical token.

13. The method of claim 1, wherein the physical token comprises a card and sensing the presence of the physical token in an instrumented association bin comprises placing the card and the physical sensor in the instrumented association bin.

14. The method of claim 13, further comprising:
before placing the card and the physical sensor in the instrumented association bin, attaching the physical sensor to the card.

15. A method for processing a physical token in a responsive environment having a processor to provide an association with a virtual document comprising:
placing a physical sensor having a sensor identifier in proximity to the physical token, wherein the physical sensor is associated with the physical token;
placing the physical token in an instrumented association bin, wherein the instrumented association bin is configured to read the physical sensor;
launching a document browser application;
obtaining sensor identifier data from the instrumented association bin;
obtaining user selection data from the document browser application identifying the virtual document to register with the token; and
creating a sensor model instance associating the physical sensor with the physical token, the user and the virtual document by using the obtained sensor identifier data and the user selection data using the processor.

16. The method of claim 15, further comprising:
setting a sensor name property.

17. The method of claim 16, further comprising:
setting the sensor name property using an identifier associated with the document.

18. The method of claim 15, further comprising:
setting a sensor type property to indicate a physical sensor.

19. The method of claim 15, further comprising:
setting a sensor class property to indicate touch detection.

20. The method of claim 15, wherein,
the physical sensor is attached to the physical token.

21. The method of claim 15, wherein the physical token comprises a card and
placing the physical token in an instrumented association bin comprises placing the
card and the physical sensor in the instrumented association bin.

22. The method of claim 21, further comprising:
before placing the card and the physical sensor in the instrumented association
bin, attaching the physical sensor to the card.

23. The method of claim 15, wherein the sensor identifier comprises a first radio-
frequency identification tag and the instrumented association bin comprises a radio-
frequency identification tag reader, further comprising reading the sensor identifier data
from the first radio-frequency identification tag using the radio-frequency identification
tag reader.

25. The method of claim 1, further comprising a plurality of physical tokens,
wherein each of the plurality of physical tokens is each associated with one of a plurality
of virtual documents.

26. The method of claim 15, further comprising a plurality of physical tokens,
wherein each of the plurality of physical tokens is each associated with one of a plurality
of virtual documents.

Appendix IX – Evidence Appendix

None

Appendix X – Related Proceedings Appendix

None